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## Curriculum Ideas for Teachers

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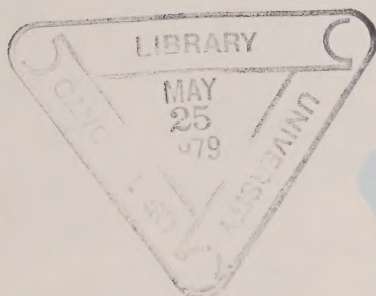
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This support document to *The Formative Years*, one of a series dealing with exceptional children in the Primary and Junior divisions presents information and suggestions to teachers of children who are partially sighted or blind.

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## Partially Sighted and Blind Children

This document provides information on visually impaired pupils in the Primary and Junior divisions. It outlines general suggestions for regular and special teachers who are charged with the responsibility of providing these children with appropriate educational opportunities.

Although the information contained herein can apply to all pupils who are visually impaired, the material has been divided into three divisions in the interests of clarity. These include:

- suggestions that apply to partially sighted pupils who have sufficient functional vision to read some form of print;
- suggestions that apply to blind pupils who must read by means of braille;
- a summary of general suggestions that can be suited to the needs of any pupil who is visually limited.



## Children Who Are Partially Sighted

Children are considered partially sighted when their distance visual acuity is 20/70 or less in the better eye with the best possible correction. Some children with a visual acuity of 20/200 or less (legally blind) can see well enough to use print and for educational purposes are considered partially sighted.

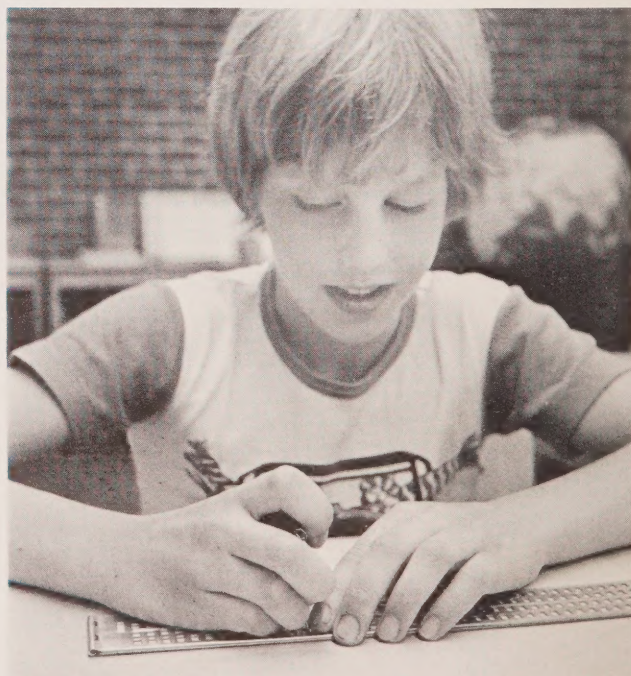
An acuity of 20/70 means that a child has to stand at a distance of twenty feet to see an object that the normal eye can see at seventy feet.

Since there are many variations in the ways that children respond to a visual disability, it is impossible to predict what special assistance will be needed by each particular child. Two children with exactly the same visual acuity will react in different ways, both socially and educationally. One child may progress in a regular classroom with minimal attention to the visual deficiency; the other child may need a great deal of special assistance. Each case must be treated individually. Thus, regular classroom teachers will likely require special materials and supportive assistance for programming.

Children who are partially sighted have usually had their difficulty diagnosed before or during their first year at school. However, a teacher may be the first to observe vision problems. In such cases, the child should be referred to the school nurse or family doctor. The following are indicators of the possibility of a vision problem:

### *A Appearance of the Eyes*

- encrusted lashes
- swollen or red eyelids
- frequent sties
- discharge in the eye or along the lids
- eyes that are unusually red or watery
- pupils of different sizes or clouding of the pupils
- eyes that move constantly
- drooping eyelids
- eyes that do not appear straight (one or both turn in, out, up, or down; especially, and sometimes only, when the child is tired)





## B Visual Behaviour

- complaints of aches or pains in the eyes
- excessive headaches; dizziness or nausea after close eye work
- squinting, blinking, frowning, facial distortions, constant rubbing of the eyes or attempts to brush away a blur; tilting of the head to see; closing or covering one eye when looking or reading
- holding reading material too close or too far away; frequently changing the distance of reading material
- head thrust forward or body tense when viewing distant objects
- inattentiveness during reading; inability to read for long periods without tiring; deterioration in reading as time span increases
- tendencies towards reversals of letters and words, or confusion of letters and numbers with similar shapes
- constant loss of place in a sentence or on a page (inability to “stay on the line”)
- problems with spacing in written work
- stumbling over objects or on playground
- preference for passive activities rather than active play
- vision fluctuating on a daily basis according to the child’s physical and emotional health and motivation to concentrate

## Visual Efficiency

Visual efficiency is a combination of acuity and perception. It is this visual efficiency rather than visual acuity only that should concern the teacher. The skill of seeing must be taught. Visual efficiency *can* be improved. The following is the developmental sequence in a visual efficiency program:

- tactile discrimination;
- visual discrimination according to size, colour, and skill of sequential ordering;
- discrimination among shades of colour;
- discrimination and recognition of geometric forms;
- visual organization of a whole from separate parts;
- discrimination among, and recognition of, black outline drawings of animals and household objects;
- ability to see similarities and differences in the inner detail and shape of similar objects;
- recognition of objects in the foreground and in the background;
- discrimination of letters and words.

Teachers should:

- provide a good variety of materials for tactile and visual discrimination;
- teach pupils to trace outline forms with their fingers;
- use flash cards for a quick drill after the child has mastered each individual skill;
- have pupils work from teacher-prepared worksheets or readiness books after learning each skill in order to develop independent work habits.

## General Suggestions for Teachers of Partially Sighted Pupils

- There is little correlation between distance visual acuity and near visual acuity. “School vision” can be assessed by observing how the child functions in a variety of situations.
- A child who is partially sighted is neither sighted nor blind. Preconceived ideas of what each child can see should be avoided.
- Each child should be taught how to look. Visual acuity may not be changed in this way, but a child can be helped to use his or her vision more efficiently.
- The ophthalmic report, including any information regarding near and distance vision as well as any field restrictions, should be available to teachers. The ophthalmologist’s recommendations for physical activities and seating position in the classroom should be followed.
- Bearing in mind each child’s visual handicap, seat each child in an appropriate position for chalkboard work and demonstrations. Glare should be avoided, a good light reflection provided, and correct illumination assured.
- Space should be provided for special materials; adjustable tilt-top desks or reading stands should be supplied.
- After experimenting, each child should be allowed to choose the most suitable lighting, pencil, chalk, print size, and other materials. The child is usually the best judge.
- Paper should be used that gives the best colour and contrast for the individual child’s visual condition.
- A more conscious effort is required of children who have only partial sight if they are to function with their peers in a regular class. The following provisions will help to reduce fatigue in each child:
  - a) Change the focus or provide physical activity during periods of close eye work.
  - b) Have another child copy notes from the chalkboard using “no carbon required” (NCR) paper.
  - c) See that each child’s glasses are clean and that they are worn when they should be.
  - d) Avoid having a child do detailed copying.
  - e) Duplicated sheets should be clear, dark, well-spaced, and should provide good contrast.
  - f) Avoid using copies made from spirit masters.

## Standard or Large Type

The ability to read standard print depends on visual acuity and efficiency, intelligence, motivation, and encouragement. When held close to the eyes, standard print has greater magnification than has large print. Close reading will not damage the eyes. Some advantages of standard print over large print are:

- the possibility of an increased reading rate;
- the availability of more reading materials;
- the greater ease of handling standard-size books;
- the availability of good colour illustrations;
- the encompassing of a greater number of words in the visual field.

## Low-Vision Aids

Because they have a large range of accommodation and because their texts, especially in the early school years, are usually printed in rather large type, children often require no visual aids until they reach Grade 6 or 7. The following aids may be used whenever they become necessary:



### *Optic*

- glasses
- contact lenses
- telescopic or microscopic lenses
- hand-held or stand magnifiers
- closed-circuit television

### *Non-Optic*

- large print
- reading stands
- high-intensity lamps

The following factors could limit the effect of an aid in improving a child's functioning in school:

### *Factors in the Aid*

- does not restore 20/20 visual acuity
- improves near vision but shortens focal length
- emphasizes the problem by its appearance

### *Factors in the Child*

- age, maturity, co-ordination
- intelligence
- motivation
- personality, attitude

### *Source of Large Print Texts*

The W. Ross Macdonald School Large Print Library supplies other schools with large-print materials and textbooks (listed in *Circular 14*). The books are loaned free of charge for the academic year. Selected books are also available on tape. A full range of texts in the French language is also available. Inquiries should be addressed to:

The Large Print Library  
The W. Ross Macdonald School  
Brantford, Ontario  
N3T 3J9



### **Curriculum Modifications for Partially Sighted Pupils**

The curriculum for pupils who are partially sighted should provide the same opportunities given to every child in Ontario as outlined in *The Formative Years*. The following specific suggestions will be useful to teachers.

### *Mathematics*

- A box with compartments should be provided so that each child has a definite place to put articles used for counting and matching.
- Each child should proceed from recognizing numbers in a three-dimensional, tactile form to recognizing them in written form.
- Seatwork should be assigned so that each child learns to work without direct supervision. Worksheets that contain pictorial directions for a child to follow are useful. Magnetic boards are also helpful.
- Black-lined graph paper or teacher-prepared lined paper assists a child in arranging vertical columns.
- A child could miss a step in a chalkboard presentation because of limited vision. Each step in the presentation should be explained while the child follows from an identical copy of the chalkboard presentation provided by the teacher.
- Instruments for measuring should be demonstrated on a one-to-one basis.
- Graph work and worksheets on fractions should be specially prepared in order to avoid text material that is too small or too complicated.
- When making measurements, the units should be kept sufficiently large so that each child can do his or her own work.

— If problems are provided on worksheets, the possibility of a child's making errors when copying directly from the chalkboard or a mathematics text is eliminated.

### *Reading*

- Each child should be directed to look at labelled objects in the room.
- Each child should be encouraged to look closely at pictures in books in order to gain information. Details should be pointed out.
- If a child has difficulty focusing, "peep cards" can be a useful aid. These are made of construction paper with a rectangular hole cut large enough to permit an entire line to be viewed at one time.
- The phonetic approach to word recognition should be used.
- Emphasis should be placed on vocabulary building, word-attack skills, comprehension, and sequence rather than speed. Some partially sighted children will never be able to develop speed in reading.

### *Writing*

- A structured program is required, with an emphasis on having a child learn one letter at a time and on developing correct directionality and shape.
- It is helpful to demonstrate points at the chalkboard to each child individually.
- It is advisable for a child to practise letter formation at the chalkboard under teacher supervision.
- Paper that has well-spaced, bold black lines is useful. This can be made by using a stencil.
- Spacing difficulties can be eliminated if each child uses his or her index finger between words as a spacer.



- The connective technique in cursive writing is appropriate so that a child's letters begin on the line.
- Time must be available for each child to practise reading his or her own writing.
- Legibility is more important than size.
- Typing can be introduced by Grades 4 or 5 if the child has adequate muscle control and co-ordination. It provides a less fatiguing form of communication and is often easier to read than the child's own writing.

#### *Music*

- When written music is used, a larger format and darker staff lines than usual may be necessary.
- A child should be encouraged to participate in choral and instrumental music.
- The individual musical growth of children who show an interest in and/or talent for music can be encouraged by allowing them to sing and/or to see such instruments as the piano, violin, recorder, drums, and classroom instruments. Musical selections should also be available for listening.

#### *Visual Arts*

Children who have only partial sight need a variety of experiences in visual arts. They should be encouraged to attempt the same activities as other children. Skills such as cutting and pasting should be individually taught.

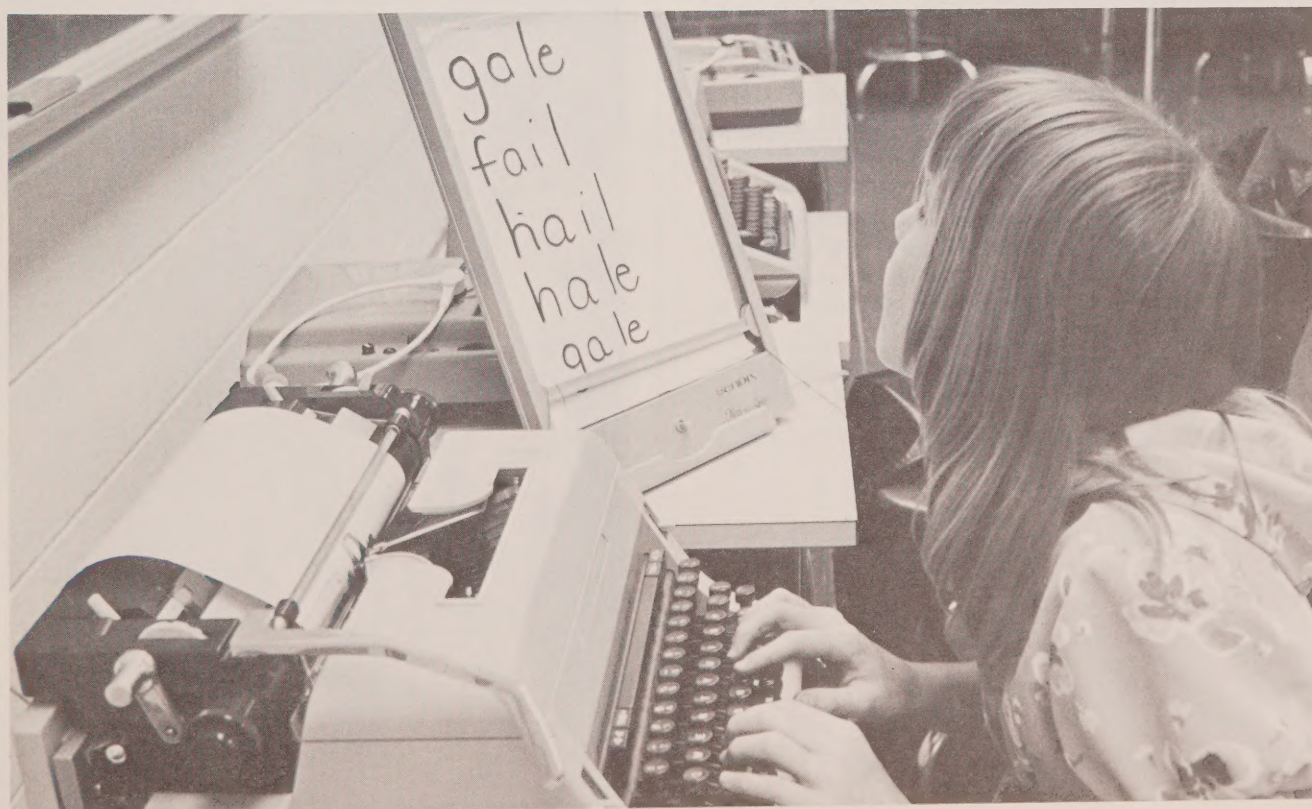
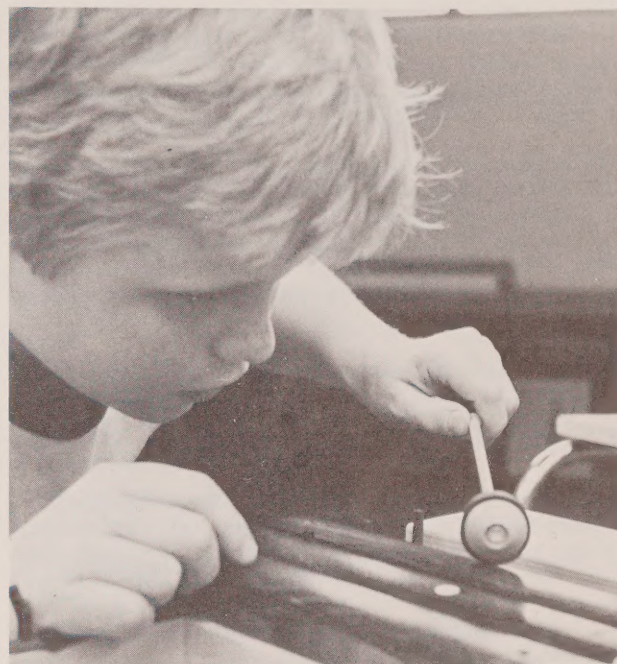
#### *Physical Education*

Within the limits of the eye specialist's recommendations, the physical education program in the elementary school is desirable and reasonable for partially sighted children.

- These children should be involved in demonstrations and teamed with others who have mastered the skills.
- A child may not see well enough to participate in games or sports. However, he or she should be involved in learning the skills of, and understanding, the different games.
- Swimming, track, and individual sports are usually excellent activities for all children.

#### *Environmental Studies*

- Models or concrete objects should be used to develop concepts.
- Diagrams must be simple and large in both outline and print and must have good colour contrast.
- Map work could be done by using the overhead projector and transparencies. Essay work may replace close map work.
- The detailed copying of maps should be avoided.
- When teamed with a peer, the partially sighted child can do experiments.
- During field trips, activities should take place within a child's focal range or field.





## Children Who Are Blind

Children are considered blind for legal purposes when, after the best correction, they have a distance acuity of 20/200 or less in the better eye or when the visual field is reduced to an angle of twenty degrees or less in the widest diameter. This means that a child who is blind can see at twenty feet what a person with normal vision can see at a distance of two hundred feet. The definition encompasses a range of visual loss from total blindness to useful vision. Some children whose acuity measurement is 20/200 or less can read print, as discussed in the beginning of this document.

This section deals with the education of blind children whose visual loss is too great to read print and who must, therefore, use braille as their reading medium.

It is impossible for a pupil using braille in the Primary and Junior divisions to function in the school program without regular support services from a specially trained teacher available through local school boards, neighbouring school boards, or a provincial resource centre.

### General Suggestions for Teachers of Blind Children

The ways in which lack of vision affects cognitive learning should be considered. There are certain basic losses that must be understood so that compensation can be made. These include:

- social competence and privacy;
- the perception of visual beauty;
- confidence and self-image;
- mobility, independence, and daily living skills;
- facility in written and oral communication.

Since a blind child's explorations are fragmented and limited only to what the hands and arms can embrace, it is vital to compensate for this lack by providing each child with complete experiences. A child should learn to relate to and interact with the environment.

- A blind pupil should learn to accomplish as many independent activities as possible.
- Structure and teacher intervention are necessary if a blind child is to learn.
- The possibilities of play activities should be fully explained to each child.
- Most blind children respond best to firm, consistent discipline. Sympathy and pity must be replaced by understanding.
- Some blind children develop repetitive habits like eye poking or rocking. By giving a child something to do with his or her hands, the teacher will often be able to modify this behaviour. The importance of good deportment for social acceptability should be explained.
- A specific objective of lessons should be the improvement of the senses of touch, hearing, smell, and taste.

— The Primary years are crucial times for teaching orientation and mobility. Before specialized instruction in travel techniques and aids is given, a pupil should have skill in the following areas:

- a) directionality;
- b) gross and fine motor control;
- c) stance and gait;
- d) free and independent movement;
- e) independent activity;
- f) distance and recognition;
- g) the interpretation of stimuli.

— Efficient and acceptable ways of eating, dressing, grooming, and all other personal habits should be taught.

— Teachers should avoid pushing or pulling a child into place. When guiding a small child, the sighted person can hold the child's hand. A taller pupil should take the arm of the sighted guide.

— Care should be taken that purely visual concepts are not given directly by the teacher to a child. Things that a child can discover under direction should not be described by the teacher. For example, instead of describing a car, the teacher should have each child examine and feel the car.

— Holistic ideas are essential.

— All remaining senses should be used.

— Children should be taught how to make careful and complete tactual examinations.

— Care must be taken that ample realistic experience is given so that a child can separate fact from fancy. For example, in "Snow White and the Seven Dwarfs", the wicked queen speaks to the mirror and the mirror replies. It must be pointed out to blind children that mirrors do not speak.





## Curriculum Modifications for Blind Pupils

The curriculum for pupils who are blind should provide the same opportunities given to every child in Ontario as outlined in *The Formative Years*. The following specific suggestions will be useful to teachers.

### Mathematics

- Blind children are often at a disadvantage in their preschool incidental learning of numbers because of a lack of visual experiences. Teachers should give attention to rational counting and grouping of concrete items.
- A good variety of items that are easily picked up and that do not roll should be used.
- Containers should be used to count items from one place to another.
- A pupil's own body can be used to help him or her to conceptualize numbers — two legs, four fingers, one thumb, and so on.
- Rhythmic clapping of number patterns is helpful.
- Many repeated experiences will ensure skill development.
- The abacus is a valuable aid to computation.
- Talking calculators may be used.
- The Nemeth Code (Braille Math and Scientific Code) is useful in arithmetic recording.
- Mental arithmetic is a pupil's most valuable skill of computation. It is especially beneficial to blind pupils to allow time for the recall of basic number facts.
- Real coins should be used for the teaching of money.
- Braille clocks are easily made by substituting braille numbers for the print symbols around the face of a clock.
- Graphs can be presented by using raised lines made on paper with a dressmaker's wheel. A rubber mat should be used under the paper when drawing with the wheel.
- Inlaid fraction puzzles are useful.
- Personal experiences with instruments of measurement, such as the trundle wheel labelled in braille, are necessary for concept development.

### Reading

- A readiness program to develop good tactual discrimination is essential. Activities involving the sorting of concrete items into such classifications as like and different, hard and soft, coarse and fine, and thick and thin are necessary. As readiness for braille reading, each child might practise passing his or her fingers over rows of raised geometric designs from left to right in order to find the designs that are alike or different; these should be indicated verbally.
- The reading skills taught to any children apply equally to the child who is blind. These include comprehension, structural analysis, and so on.
- The whole-word method of teaching braille reading is the most effective.
- Two-handed reading should be encouraged.
- Whenever possible, stories should be supplemented with real experiences. Abstract terms will require explanation.
- Since braille is a slower medium than print, additional time must be allowed for the braille reader to complete an assignment.
- Grade 2 Contracted Braille is taught from the beginning.

- Braille page numbers do not correspond to the print copy. Teachers who use print while their children use braille find it useful to write the braille page numbers in the print copy.

- Phonetic analysis is an important skill for the braille reader to acquire.

- Some blind children may learn to use a reading device called the Optacon.

### Writing

- There are two methods of writing braille: the slate and stylus and the braille writer. Primary children begin on the writer and move to the slate in about three years.
- Braille users need extra practice in spelling because of the many contractions and short forms of words that they meet in braille. For example, "receive" becomes "rcv" in braille. The spelling lesson must include both the braille form and the printed form. Practice and oral repetition is important, and the use of tapes is helpful.
- Typing skills should be introduced whenever a child is ready — usually in the fourth or fifth year.
- Signature writing should be taught to children who are blind, although it is a difficult skill to master. It is better to use cursive signatures from the beginning. Plasticine models of each pupil's name might be tried. When signatures are learned, they must be used every day so that the child's retention will not deteriorate.

### Music

- Most blind children are not gifted musically, although their developed listening skills are helpful in this subject.
- Children who are blind participate well in rhythm bands and musical ensembles.
- Where instrumental music programs exist, blind children should be given the opportunity to participate.
- Full participation in classroom music should be encouraged.
- Choir and festival work is good experience.
- Creative movement to rhythm is beneficial.
- Braille musical notation should be taught by qualified instructors.

### Physical Education

- The children's involvement in the physical education program should be encouraged.
- Exercises, wrestling, skating, relays, running, field events, swimming, and dancing are a few of the appropriate sports for the blind participant.
- If teachers or other pupils call or clap, a child will know in which direction to run or throw.
- Full participation in certain games may not be possible, but the rules and scoring systems should be understood by all.
- Teachers should not be overprotective of blind children.



### *Visual Arts*

– A tactual appreciation of art forms can be satisfying to children who are blind if the form has simple lines and definite textures.

– Clay modelling, other three-dimensional art experiences, and brush and finger painting are valuable activities, and give meaning to visual art.

– A true understanding of colour is impossible for the congenitally blind; however, these children need a colour vocabulary and should be taught static colours like “grey elephants – white snow”. As well, a knowledge of colour co-ordination is important for personal appearance.

– Wood collage and paper sculpture are appropriate activities.

– Cutting with scissors is difficult, but can be accomplished with a teacher’s assistance.

– Stories of great artists can be appreciated.

### *Drama*

– Participation in plays and dramatic presentations is good for the blind. It teaches natural gestures and movement that cannot be learned through visual imitation.

– A child’s role in dramatic work must be fully explained. Teachers may have to give stage directions from the sidelines.

– A heavy string can be fastened to the floor so that a child can move to a particular place on stage by walking along the string.

– Teachers should explain staging, properties, lighting, and all other aspects of play production to a pupil.



### *Environmental Studies*

– The skill of tactual map and diagram reading must be taught.

– Tactual maps and diagrams by themselves cannot be expected to convey the same meaning that visual maps and pictures give to other children. Detailed explanations must accompany the tactual display.

– Tactual maps can be made from the following media: string, pipe cleaners, wool, styrofoam, foil, clay, salt, plaster, plasticine, and sandpaper.

– Maps should be simple and small enough to be encompassed by both hands.

– Tactual maps should show only limited information in order not to confuse the child. Only the most important information should be included on the first map. If more details are needed, a series of maps can be used with additional information on each map.

– Raised-line diagrams can be used after a child has a clear idea of representation.

– A blind pupil can make good science collections and can sort them into classifications by touch.

– A blind pupil can substitute written explanations for diagrams.





## General Suggestions for Teaching Children With Visual Limitations

- Continuous communication must exist between teachers and parents in order to develop and maintain consistency of objectives and approach.
- Adequate information should be provided to the receiving school before a pupil transfers to another school.
- Concrete materials should be presented to visually limited children.
- Teachers should avoid overprotecting pupils with visual limitations.
- Freedom of movement and exploration should be encouraged.
- Teachers should remember that learning through incidental observation is difficult for a child with impaired vision, since a child's eyes are normally a major source of environmental information.
- Physical activity should be stressed. The school nurse and school medical records should be consulted for any restrictions in this regard.
- Good posture should be emphasized. A child should be discouraged from walking or sitting with the head down.
- Skills of orientation and mobility can be developed by:
  - a) encouraging independence, exploration, and freedom of movement;
  - b) creating awareness of directional clues for travel such as the sounds of traffic or the opening of doors;
  - c) setting up a "buddy system" within the school on a short-term basis;
  - d) teaching each pupil to make mental maps before setting out for specific locations;
  - e) keeping doors either fully open or closed;
  - f) providing formal mobility techniques and instruction when appropriate and where qualified instructions are available.
- Some form of personal contact such as a gentle touch should be used to aid communication.
- A teacher should allow the visually impaired person to take his or her arm when being guided.
- A structured program should be used for developing listening skills.
- Daily listening activities should be given to improve orientation and mobility, sound discrimination, word recognition, comprehension, and retention.
- The use of audio devices should be taught.
- Sound awareness, interpretation, localization, and selectivity should be developed.
- Voice tone, rhythm, and resonance should be taught, as well as enunciation.
- Pupils should be instructed to face the person with whom they are communicating.
- Facial expressions and gestures should be taught.
- Teachers should read aloud what is written on the chalkboard.

- A variety of written work should be assigned in small amounts.
- Teachers should demand the same standards of work from the visually impaired child as from any other pupil – work completed and on time for class.
- The use of detailed diagrams or drawings should be avoided.
- Organization should be stressed to save time and effort.
- Planning should be done well in advance so that resource services have time to tape, type, braille, or otherwise prepare material for each visually impaired child.
- Typing skills should be developed at the elementary level.
- Oral drill should be used to improve each pupil's spelling.
- Additional time should be allotted for tests.
- Written tests should be read to a child if necessary.
- All or part of a test should be taped if necessary.
- Additional time should be allowed for the visually impaired child to manipulate materials and records.
- Teachers should concentrate on visual learning if the child has some vision, but should make use of multi-sensory experiences to increase the sensitivity and usefulness of the other senses.
- The techniques of daily living that are learned through visual observations should be taught; these include eating, grooming, dressing, gestures, etc.
- Teachers should remember that the most important single factor is his or her attitude. A positive, accepting attitude combined with realistic expectations will build a child's self-confidence and encourage his or her acceptance by classmates.
- Teachers should understand the nature of the eye condition and how it affects the visual image.





## Common Causes and Definitions of Eye Defects in Children With Limited Vision

**Albinism.** The eyes are light sensitive. Minimum illumination is needed, and tinted glasses are usually prescribed.

**Astigmatism.** This defect causes an error in refraction, and images are blurred with generally poor visual discrimination. Glasses are prescribed with usually positive results. Good illumination is recommended.

**Cataracts.** Any lens opacity is a cataract. Such an opacity causes blank areas in what is seen. Depending upon the nature of the opacity, minimum to maximum light is required.

**Colour blindness.** A child is unable to distinguish colours. More boys than girls are affected. Avoid colour-coded directions.

**Glaucoma.** This problem is caused by increased intraocular pressure. Glaucoma patients require constant medical attention and sometimes suffer headaches. Quite often peripheral vision is poor. Good illumination is recommended.

**Hyperopia.** The hyperopic eye is far-sighted. A child with this condition usually functions well on the playground but finds reading and other near work difficult and tiring until correction is provided.

**Monocular vision.** Through disease, accident, or defect a child is left with only one seeing eye. Compensation is soon made, a child should be able to function normally. Such a child is not considered partially sighted unless acuity in the remaining eye is 20/70 or less.

**Myopia.** The myopic eye is near-sighted. Distance vision is blurred so that gross activities are difficult. A child with this condition is more comfortable with reading and other close work.

**Nystagmus.** The involuntary movement of the eyeball caused by this problem makes focusing and fixation difficult.

**Optic atrophy.** The optic nerve sustains permanent loss of its function to carry clear images to the brain. A child may have restricted fields of vision. Visual behaviour may be inconsistent.

**Peripheral vision.** This is the ability to see only those activities and objects outside of the direct line of vision. Because of defective central vision a child may have to tilt the head or raise or lower the eyes in order to read.

**Retinitis pigmentosa.** Pigment deposits in the retina cause loss of peripheral fields resulting in tunnel vision. Major difficulties occur in dim light. Good illumination is needed. This disease has a poor prognosis.

**Strabismus.** An imbalance of the eye muscles causes failure of the two eyes to focus on the same object. The defect includes crossed eyes or eyes that deviate upward or downward. Early treatment is vital, or a "lazy eye" (amblyopia) can result.

**Tunnel vision.** The field of vision is so reduced that a child sees only what is directly in front. It creates the same visual image that others see when looking through a tube or a straw. This severely affects a child's mobility and the collection of information in the environment.

## Common Causes of Blindness

The diseases outlined for partial sight, when severe enough, can also result in blindness. Some diseases commonly causing blindness include the following:

**Retinal detachment.** The retina can become separated from its choroid bed, making it incapable of receiving images. The separation can be caused by injury or disease.

**Retinoblastoma.** This is an intraocular tumor that is often malignant. The eyes are usually removed and the child is fitted with prostheses.

**Retrolental fibroplasia.** This is a condition occurring in babies who have a low birth weight and who have been exposed to a greater than normal concentration of oxygen.

**Rubella.** This syndrome is a result of maternal rubella infection during the first months of pregnancy.

**Sympathetic ophthalmia.** When there is a penetrating wound to one eye, the other eye may reflect the same characteristics as the injured eye. Enucleation of the injured eye is often done before the sympathizing eye is affected.









## Resources

To receive assistance, teachers should follow individual school board policies regarding the methods for contacting the following resource services:

- public health nurse
- Special Education consultant
- vision resource program (where available)
- The W. Ross Macdonald School, Brantford, Ontario N3T 3J9
- The Large Print Library, The W. Ross Macdonald School, Brantford, Ontario N3T 3J9
- The Canadian National Institute for the Blind. Area offices are listed in the telephone directory.
- The Low Vision Clinic, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario M5G 1X8
- School of Optometry, Faculty of Science, University of Waterloo, Waterloo, Ontario N2L 3G1

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